

REMARKS

Claims 1-35 were pending all of which were rejected. Claims 1, 2 and 31 have been amended and Claims 36-42 have been cancelled.

Claim Rejections – 35 U.S.C. §102

Claims 1, 3-4, 7, 15-21, 29, and 31-34 were rejected under 35 U.S.C. §102(e) as being anticipated by Song (2004/0036980) ("Song"). Applicant requests reconsideration.

Independent Claim 1 recites, among other things, "a light emitting diode comprising a chip having a light emitting surface that emits light having a range of wavelengths into a medium" and "a collimating optical element disposed to receive the light having only the range of wavelengths emitted from the light emitting surface of the chip".

Song, on the other hand, teaches the use of a single color laser diode. For example, at paragraph [0058], cited by the Examiner, Song states that either a "red laser diode (wavelength 650 nm) is used for a light source" or a "blue laser diode (wavelength 405 nm)" may be used. Song does **not** teach or suggest that "a light emitting diode comprising a chip having a light emitting surface that emits light having a range of wavelengths" as recited in Claim 1.

Accordingly, Song fails to teach or suggest all the limitations of Claim 1. Thus, Applicant respectfully submits that Claim 1 is patentable over Song. Reconsideration and withdrawal of this rejection is respectfully requested. Claims 3-4, and 7, and 15-16 depend from Claim 1 and are, therefore, likewise patentable for at least the same reasons.

Independent Claim 17 recites "a light emitting diode comprising a chip having a light emitting surface, wherein the light emitting surface is not covered by an encapsulant such that the light emitting surface emits light directly into the ambient environment".

Song, on the other hand, discloses a light source 110 that is "provided as a diode module having a protective window" That is, light diverging from a light emitting diode chip passes through the protective window". Paragraph [0065]. Moreover, the light source 110 is illustrated in Song as including a rounded lens element. Thus, there is **no** disclosure nor any suggestion in Song that the "the light emitting surface is not covered by an encapsulant", or that the "light emitting surface emits light directly into the ambient environment" as recited in Claim 17.

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Accordingly, Song fails to teach or suggest all the limitations of Claim 17. Thus, Applicant respectfully submits that Claim 17 is patentable over Song. Reconsideration and withdrawal of this rejection is respectfully requested. Claims 18-21 and 29 depend from Claim 17 and are, therefore, likewise patentable for at least the same reasons.

Independent Claim 31 recites "a light emitting diode comprising a chip having a light emitting surface that emits light having a range of wavelengths" and "a collimating optical element disposed to receive the light having only the range of wavelengths emitted from the light emitting surface of the chip". As discussed in reference to Claim 1, Song to teach or suggest "receive the light having only the range of wavelengths emitted from the light emitting surface of the chip".

Claim 31 also recites "a micro-display disposed to receive the light emitted from the light emitting surface of the chip after the light passes through the collimating optical element". Song does not teach or suggest a micro-display, nor does the Examiner address this element.

Accordingly, Song fails to teach or suggest all the limitations of Claim 31. Thus, Applicant respectfully submits that Claim 31 is patentable over Song. Reconsideration and withdrawal of this rejection is respectfully requested. Claims 32-34 depend from Claim 31 and are, therefore, likewise patentable for at least the same reasons.

Claim Rejections – 35 U.S.C. §103

Claim 2 was rejected under 35 U.S.C. §103(a) as being unpatentable over Song. Applicant requests reconsideration.

Claim 2 recites "a chip having a light emitting surface that emits light into a medium with a refractive index of less than or equal to approximately 1.25". There is no disclosure or suggestion in Song for "a chip has a light emitting surface that emits light into a medium with a refractive index of less than or equal to approximately 1.25". In fact, as discussed above in reference to Claim 17, Song teaches away by specifically disclosing that "light diverging from a light emitting diode chip passes through the protective window". Paragraph [0065].

Further, Claim 2 recites "wherein the collimating optical element and the chip are separated by a distance that is less than or equal to approximately 50% of the width of the chip." While the Examiner stated that the distance is considered to involve routine optimization, Applicant disagrees. Applicant points out that the Examiner's rejection appears

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to be premised on Okazaki as opposed to Song. For example, Applicant's attorney can not find reference to optical element 7 in Song. Moreover, there is no discussion or suggestion in Song to separate the collimating optical element and the chip by a distance that is less than or equal to approximately 50% of the width of the chip. For example, the figures of Song illustrate a large distance between the light source 110 and the collimating lens 120.

Claims 5, 22, and 35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Song in view of Waitl et al. (6,610,563) ("Waitl"). Reconsideration is requested.

Claim 5 depends from Claim 1, Claim 22 depends from Claim 17 and Claim 35 depend from Claim 31. Waitl does not make up for the deficiencies of Song. Accordingly, Claims 5, 22 and 35 are patentable for at least the same reasons as Claims 1, 17, and 31, respectively.

Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Song modified by Waitl further in view of Ishinaga (6,180,962) ("Ishinaga"). Reconsideration is requested.

Claim 6 depends from Claim 1. Ishinaga does not make up for the deficiencies of Song and Waitl. Accordingly, Claim 6 is patentable for at least the same reasons as Claim 1.

Claims 8-12 and 23-27 were rejected under 35 U.S.C. §103(a) as being unpatentable over Song in view of Bogner et al. (7,026,657) ("Bogner"). Reconsideration is requested.

Claims 8-12 depend from Claim 1 and Claims 23-27 depend from Claim 17. Applicant's attorney submits that Bogner does not make up for the deficiencies of Song. Accordingly, Claims 8-12 and 23-27 are patentable for at least the same reasons as Claims 1 and 17.

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For the above reasons, Applicants respectfully request allowance of Claims 1-35.
Should the Examiner have any questions concerning this response, the Examiner is invited to call the undersigned at (408) 982-8202.

CERTIFICATE OF FACSIMILE TRANSMISSION
I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office to the fax number 571-273-8300 on February 20, 2007.

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Respectfully submitted,

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